

IN THE SPECIFICATION:

Page 1, lines 7-14, replace the paragraph with the following amended paragraph.

The present invention concerns hearing aids. In many hearing aids, for example "In-the-ear" (ITE) and "Behind-the-ear" (BTE), the microphone and the receiver (telephone) components are placed close to each other. This may result in [that] leaking of the sound produced by the receiver [leaks] back into the microphone. This may occur when the hearing aid shell or the ear mould does not fit sufficiently tight in the ear canal. Given enough amplification in the hearing aid, the loop gain of the system may exceed 0 dB at some frequency and a feedback oscillation may be produced.

Page 1, lines 23 to 30, replace the paragraph with the following amended paragraph.

The invention relates to a feedback cancellation algorithm[,] which does not need an artificial noise signal in order to estimate the feedback transfer function. The input signal received from the environment, or the feedback oscillation signal, is used to drive the estimation process. In this fashion, the hearing aid user does not listen to an added noise signal, and a higher sound quality is possible. However, it is well known that such 'no-noise' algorithms can have audible side effects under certain circumstances, especially when environmental signals with long autocorrelation functions are present at the microphone.

Page 2, lines 12 to 30, replace the paragraph with the following amended paragraph.

It is an objective of the present invention to provide a method and a hearing aid having means for feedback cancellation[,]which improves the result of the feedback canceling by being more stable and thereby gives an improved user comfort.

SUMMARY OF THE INVENTION

According to the invention the first objective is achieved by a method, ~~which comprises the feature of claim 1~~ for canceling feedback in an acoustic system that includes a microphone, a signal path, a speaker, means for detecting presence of feedback between the speaker and the microphone, and filter means for compensating at least partly a possible feedback signal, which includes using a LMS algorithm for generating filter coefficients; using a highpass filter to prevent low-frequency signals from entering the LMS algorithm; and using an additional feedback cancellation filter and a noise generator is used for providing low-frequency input for the LMS algorithm. According to the invention, the first objective is likewise achieved by a hearing aid[,] ~~which comprises the features of claim 8~~ includes a microphone; a signal path; a amplifier; a speaker; means for detecting feedback between the speaker and the microphone; filter means for at least partly compensating a possible feedback signal; memory means including a LMS algorithm

for generating filter coefficients; at least one highpass filter for preventing low-frequency signals from entering the LMS algorithm; and an additional feedback cancellation filter and a noise generator for providing low-frequency input for the LMS algorithm.

Hereby a more stable system is achieved. The stability is connected with the fact that the LMS algorithm is controlled in a more reliable manner, thereby [hereby] providing more reliable coefficients to the feedback cancellation filter. This results in an improved user comfort.

~~Advantageous embodiments are described in the dependent claims 2-8 and 10-13. The function and effect of these is explained in connection with the preferred embodiment.~~

Page 4, lines 13-14, replace the description with the following amended description.

FIG. 3 is a schematic diagram showing the feedback detection system according to the invention[;].

Page 4, lines 23 to 30, replace the paragraphs with the following amended paragraphs.

The basic system shown [fig.] Fig. 1 may be improved in various ways to minimize the side effects associated with certain input signals. Many authors have proposed additional system blocks[,], which will improve the sound quality while maintaining an acceptable adaptation speed.

The present invention is based on the system diagram shown in [fig.] Fig. 1, and the invention consists of additional features[,] which will improve the sound quality and maintain an acceptable adaptation speed.